

- Dee, T. J. 1986. *The Endemic Birds of Madagascar*. ICBP, Cambridge.
- Ferguson-Lees, I. J., Franklin, K., Mead, D. & Burton, P. In Press. *Birds of Prey: an identification guide to the raptors of the world*. Houghton Mifflin.
- Langrand, O. & Meyburg, B. U. 1984. Birds of prey and owls in Madagascar: their distribution, status and conservation. In J. M. Mendelsohn & C.W. Sapsford (eds). *Proc. 2nd Symp. African Predatory Birds*. Natal Bird Club, Durban, South Africa.
- Langrand, O. 1990. *Guide to the Birds of Madagascar*. Yale Univ. Press.
- Raxworthy, C. J. & Colston, P. R. 1992. Conclusive evidence for the continuing existence of the Madagascar Serpent-eagle *Eutriorchis astur*. *Bull. Brit. Orn. Cl.* 112: 108–111.
- René de Roland, L. A. & Watson, R. T. 1993. Tests of diurnal raptor survey techniques. In R. T. Watson (ed.), *Madagascar Project: Progress Report I, 1991 and 1992*. The Peregrine Fund, Inc., Boise, U.S.A. 152 pp.
- Sheldon, B. C. & Duckworth, J. W. 1990. Rediscovery of the Madagascar Serpent-eagle *Eutriorchis astur*. *Bull. Brit. Orn. Cl.* 110: 126–130.
- Thorstrom, R. 1994. *Avian inventory on Masoala Peninsula*. Unpublished report. The Peregrine Fund, Inc., Boise, U.S.A.
- Watson, R. T. & Lewis, R. In press. Raptor studies in Madagascar's rain forest. In R. D. Chancellor & B.-U. Meyburg (eds). *Proc. 4th World Conference on Birds of Prey and Owls*. World Working Group on Birds of Prey, Berlin.
- Watson, R. T. & Strzalkowska, S. 1993. Masoala Project: the next three years. In R. T. Watson (ed.), *Madagascar Project: Progress Report I, 1991 and 1992*. The Peregrine Fund, Inc., Boise, U.S.A. 152 pp.

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## Range extensions and nesting of the Glossy-backed Becard *Pachyramphus surinamus* in central Amazonian Brazil

by Andrew Whittaker

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The Glossy-backed Becard *P. surinamus* inhabits the canopy and subcanopy of *terra firme* forest in central Amazonian Brazil, where pairs are found mostly accompanying large or small mixed-species flocks or occasionally as solitary pairs. Among the reasons for the species being so poorly known are its rather restricted range in South America and the fact that it spends most of the time in the canopy and subcanopy of the rainforest, where it is very easy to overlook unless one knows its voice.

### Distribution

Meyer de Schauensee (1970) reported the range of *P. surinamus* as Surinam, French Guiana, and eastern Brazil north of the Amazon. The following two records represent extensions of the range over two important zoogeographic barriers. The first, a sight record on 28 September 1989, was of a pair constructing a nest at Alvarães (3°20'S, 64°53'W), near Tefé. Alvarães is situated about 25 km west of Tefé on

the south bank of the Rio Solimões (Amazon River). This represents an extension of about 560 km due west from the nearest previously known site, the Reserva Ducke some 20 km east-northeast of Manaus (Willis 1977). The second record was of birds observed in July 1993 on five separate days in the *terra firme* forest of the Jaú National Park, Amazonas, on the north bank of the Rio Jaú on the Pataua stream (1°52'08"S, 61°46'45"W). The Jaú National Park is on the west bank of the Rio Negro, about 100 km northwest of Novo Airão (Pádua 1983). This represents the first record for the species west of the Rio Negro, and extends its known range by about 240 km almost due west from the Projeto Dinâmica Biológica de Fragmentos Florestais (PDBFF) site 80 km north of Manaus (Stotz & Bierregaard 1989). There has also been another recent record west of the Rio Negro, at Fazenda São Francisco near Manacapuru about 50 km west-southwest of Manaus (Mario Cohn-Haft pers. comm.).

The range extension south of the Amazon follows the recent trend for 'Guianan' species (formerly known only from the northeastern corner of the Brazilian Basin) to be found first much further southwest in the Manaus area, and then even further southwest. Two species that followed this pattern were the Guianan Gnatcatcher *Polioptila guianensis* (Willis 1977) and the Crimson Fruitcrow *Haematoderus militaris* (Bierregaard *et al.* 1987, Stotz & Bierregaard 1989). These species were previously known only from the northeastern corner of the Brazilian Amazon, before being found near Manaus. Later *P. guianensis* was recorded from south of the Amazon River, from the upper Rio Urucu near Tefé (Peres & Whittaker 1991); and more recently still, both *P. guianensis* (D. Stotz pers. comm.) and *H. militaris* (Whittaker 1993) have been found another 1000 km southwest in the state of Rondonia. This must alert us to the possibility that *P. surinamus* may well be found to occur further south and west than the two new localities recorded here.

### Breeding records

The first Glossy-backed Becard nests were recorded by Haverschmidt (1972) and Oniki & Willis (1982). I located a nest at the PDBFF reserves on 1 August 1988, while I was observing an active nest of the Ornate Hawk-eagle *Spizaetus ornatus* in an emergent leguminous tree. The area of the PDBFF reserves consists of a mosaic of *terra firme* forest and agricultural development (mostly cattle pasture) between 50 and 80 km north of Manaus (Bierregaard & Lovejoy 1988, Lovejoy & Bierregaard 1990). I noted a female Glossy-backed Becard leaving a nest suspended in the outer branches, about 25 m above the ground and about 8 m above the eagle's nest, which was in the second main fork off the tree trunk and contained two small young. The becard nest was globular with a side entrance, and made of what looked like small dark twigs. It seemed possible that the siting of the nest close to that of the eagle may have afforded protection against predators. I recorded a second nest, as already mentioned, on 28 September 1989 at Alvarães, near Tefé. This nest was in the process of being built in a dead, isolated tree about 40 m tall. Both male and

female were bringing in small dead twigs to the ball-shaped nest with a side entrance. It was suspended on the end of a small branch about 30 m high, and was about 7–8 m from an active wasp nest. The nest seemed to be made of dead moss, rootlets, and small twigs and woven onto the end of the branch. The isolated tree was located in a strip of land that had been deforested and then abandoned and was overgrown by secondary growth about 3–5 m tall. A small strip of *terra firme* forest remained intact some 50 m away, offering a corridor to virgin *terra firme* forest, which was about 1 km away. Both Haverschmidt (1972) and Oniki & Willis (1982) recorded nesting associations of the Glossy-backed Becard with nests of social bees (*Trigona*); two nests recorded by Haverschmidt were actually sited on top of large active *Trigona* bees' nests. My observation of their nesting next to an active wasps' nest is the first for the species, but this is well known in the Cinnamon Becard *Pachyramphus cinnamomeus* (Skutch 1989) and White-winged Becard *Pachyramphus polychopterus* (pers. obs.).

These two records suggest that the main breeding season for *P. surinamus* may be at the height of the dry season, which in central Amazonia is August–September. This is in agreement with Oniki & Willis's record for Manaus (20 August), and Haverschmidt's (1972) evidence that *P. surinamus* breeds in Surinam from August to October, during the long dry season.

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#### References:

- Bierregaard, R. O. Jr., Stotz, D. F., Harper, L. H. & Powell, G. V. N. 1987. Observations on the occurrence and behavior of the Crimson Fruitcrow (*Haematoderus militaris*) in central Amazonia. *Bull. Brit. Orn. Cl.* 107: 134–137.
- Bierregaard, R. O. Jr. & Lovejoy, T. E. 1988. Birds in Amazonian forest fragments: effects of insularization. *Acta XIX Congr. Int. Orn.* 2: 1564–1579.
- Haverschmidt, F. 1972. *Pachyramphus surinamus* nesting in Surinam. *Ibis* 114: 393–395.
- Lovejoy, T. E. & Bierregaard, R. O. Jr. 1990. Central Amazonian forests and the Minimum Critical Size of Ecosystem Project. Pp. 60–71 in A. H. Gentry (ed.), *Four Neotropical Rainforests*. Yale Univ. Press.
- Meyer de Schauensee, R. 1970. *A Guide to the Birds of South America*. Academy of Natural Sciences of Philadelphia.
- Oniki, Y. & Willis, E. O. 1982. Breeding records of birds from Manaus, Brazil: Formicariidae to Pipridae. *Rev. Bras. Biol.* 42: 563–569.
- Pádua, M. T. J. 1983. *Os Parques Nacionais e Reservas Biológicas do Brasil*. IBDF. Editora Gráfica Brasileira, Brasília.

- Peres, C. & Whittaker, A. 1991. Annotated checklist of the bird species of the upper Rio Urucu, Amazonas, Brazil. *Bull. Brit. Orn. Cl.* 111: 156–171.
- Stiles, F. G. & Skutch, A. F. 1989. *A Guide to the Birds of Costa Rica*. Cornell Univ. Press.
- Stotz, D. F. & Bierregaard R. O. Jr. 1989. The birds of the Fazendas Porto Alegre, Esteio and Dimona north of Manaus, Amazonas, Brazil. *Rev. Brasil. Biol.* 49: 861–872.
- Whittaker, A. 1993. Notes on the behaviour of the Crimson Fruitcrow *Haematoderus militaris* near Manaus, Brazil, with the first nesting record for this species. *Bull. Brit. Orn. Cl.* 113: 93–96.
- Willis, E. O. 1977. Lista preliminar das aves da parte noroeste e areas vizinhas da Reserva Ducke, Amazonas, Brazil. *Rev. Brasil. Biol.* 37: 585–601.

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## Field observations on the Azores Buzzard *Buteo buteo rothschildi*

by Tiziano Londei

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The first human population settled the Azores in the 15th century and named the group "Açores" probably after the resident buzzard ("Açor" is the Portuguese word for Goshawk), the only resident diurnal raptor. Although this conspicuous bird is well-known in the Azores, there have been few published studies on it. The most comprehensive account is still that by Bannerman & Bannerman (1966), incorporating contributions by the Azorean ornithologist J. Agostinho. More information on taxonomy is offered by James (1984), who found this small-sized race of the Common Buzzard clearly distinct subspecifically on the basis of the statistical analysis of museum specimens.

While in the Azores from 17 to 29 August 1992, I had many opportunities of seeing these very common birds in the field. I made most of the observations in São Miguel (eight days) and to a lesser extent Faial (two days) and Terceira (two days). I used 8 × 40 binoculars and took photographs using a 300-mm lens.

### Morphology

As can be seen in Figures 1 and 2, *rothschildi* is rather similar to nominate *buteo* in general shape, but it looks less massive. In flight its tail looks proportionately longer, whereas it is proportionately shorter from calculations of the tail-wing ratio (James 1984). I believe that the tail appears longer due to the relative narrowness of the wing.

A. H. James (*in litt.* 13 June 1993) stressed the resemblance in shape and size between *rothschildi* and *vulpinus*. However, while the skeletal